

CONTRIBUTION TO A KNOWLEDGE OF THE  
GENUS *IODIS*.

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Through the published descriptions of Lepidoptera by Mr. Meyrick, collectors in Australia are beginning to have the advantage of such a basis as is compatible with new work. Hitherto the paucity of books of reference—the scattered fragmenta of records—and the difficulty of recognising the too brief descriptions of described species, have prevented collectors from doing further work. We gladly hail the papers by Mr. Meyrick, and can only express the wish that such contributions will be rapidly multiplied.

Of the genus *Iodis*, Mr. Meyrick computes that there are 200 species. Of these he describes or tabulates 41 in Vol. II. (2nd series) of the Proceedings of this Society. To that list I am now able to add nine species. In addition, I have in this paper given additional localities for sixteen of his tabulated species from specimens in my own collection.

*IODIS GLAUCOSA*, n.sp.

♀. 20 mm.—Face and head dark green, fillet greenish-ochreous. Palpi light brown, very short. Antennæ brown. Thorax dark glaucous-green. Abdomen dark green, posteriorly and laterally lightish-ochreous. Legs ochreous. Forewings with costa rounded, apex angular; hind margin sinuous, oblique, rounded, apical third sub-convex; dark glaucous-green, sparingly darkened by indistinct straggling strigulae; costa brown, densely hairy on free margin; discoidal spot small but conspicuous, black; cilia light grey, tending to orange at base. Hindwings as forewings; hind margin strongly bent and drawn to angle at vein 4.

Brisbane. One specimen; October, 1887.

In general relationship comes near *I. centrophylla*, Meyr

## IODIS ANGULATA, n.sp.

29 mm.—Head brown, fillet ochreous-white, post-orbital rims white. Palpi green; terminal joint long, greenish-grey. Antennæ brownish-ochreous. Thorax dark blue-green. Abdomen green, sides and apex white. Legs brown, hind pair ochreous, tibiæ brown. Forewings with costa arched, apex strongly angular; hind margin oblique, slightly rounded; bluish-green; costa only a very fine ochreous line; discal spot indistinct, small, black; cilia grey, green at base. Hindwings as forewings; hind margin strongly bent at vein 4, and thus showing three conspicuous angles—the apical, the anal, and the central prolongation of vein 4.

Brisbane. One specimen.

Allied to *I. centrophylla*, Meyr., from which it differs in many characteristics.

## IODIS SUBALPINA, n.sp.

♂♀. 36 mm.—Head and face pale yellow, fillet white. Palpi crimson. Antennæ light brown, whitish underneath. Thorax green. Abdomen green, sides and apex white. Fore and middle legs red, hind legs ochreous-white. Forewings with costa arched, hind margin obliquely rounded; bright pea-green, costa ochreous; two finely pencilled interruptedly dentate ochreous lines, first from  $\frac{1}{3}$  inner margin stops short at  $\frac{2}{3}$  across wing immediately below  $\frac{1}{4}$  costa, second from  $\frac{2}{3}$  inner margin parallel with hind margin for  $\frac{2}{3}$  width of wing, thence sharply rounded inwards to  $\frac{3}{3}$  costa; discal spot deep glaucous-green; cilia crimson. Hindwings with colour and cilia as in forewings, the discal spot less distinct; first line absent, second line  $\frac{2}{3}$  costa to  $\frac{2}{3}$  inner margin, finely pencilled, ochreous, sinuous, dentate; hind margin angled, bent on vein 4; cilia of hind margin greenish-grey.

Fernshaw, Moe, Victoria (500 to 1500 feet).

Allied to *I. carenaria*, Gn.

## IODIS ASSIMILIS, n.sp.

♂♀. 28-30 mm.—Head crimson, fillet ochreous-white, back of crown narrowly crimson. Palpi crimson, terminal joint short. Antennæ ochreous, pectinated, simple towards apex. Thorax deep emerald green; shoulders narrowly crimson, hairy beneath. Abdomen green, a conspicuous dorsal ochreous line, apex and sides white. Legs crimson, ochreous beneath, hind pair white. Forewings with costa slightly arched; hind margin in ♂ scarcely rounded, oblique; in ♀ rounded; rich deep emerald green; costa narrowly ochreous, rich crimson at base; a minute but distinct black-green discal spot; lines absent; cilia white. Hindwings as forewings, discal spot larger, dark green, cilia ochreous.

Brisbane. January to June, 1888.

Allied to *I. vertumnaria*, Gn., and *I. externa*, Walk.

## IODIS BICOLORA, n.sp.

♂♀. 33-35 mm.—Face and head deep green, fillet white, post-orbital rims white. Palpi white, upper surface dark grey, terminal joint elongate. Antennæ white. Thorax green, densely hairy beneath. Abdomen green; sides, posterior third of dorsum, and apex white. Anterior legs light red, coxæ white; middle legs ochreous, posterior legs white. Forewings with costa nearly straight, hind margin slightly rounded; rich glaucous-green, with numerous short interrupted transverse whitish strigulae; costa white, narrowing at base, and at  $\frac{2}{3}$  becoming an attenuated ochreous line; discal spot deep glaucous-green; a faint, sometimes scarcely perceptible, whitish line  $\frac{2}{3}$  costa to  $\frac{3}{4}$  inner margin and parallel with hind margin; cilia whitish, dark green at base. Hindwings strongly rounded, obtusely bent on vein 4; discal spot faint glaucous-green; colour, strigulation, and cilia as in forewings.

Brisbane; rare. March to May, 1888.

This species is strongly allied to *I. ocyptera*, Meyr. It appears to be larger. Probably it has much more white on the abdomen, and the hind wings are obtusely bent on vein 4.

IODIS GRACILIS, n.sp.

♂♀. 30-32 mm.—Face ferruginous, becoming whitish-green on lower margin, fillet white, post-orbital rims white. Palpi grey, whitish beneath, terminal joint long. Antennæ light grey, pectinated, in ♂ short, brown. Thorax pale grey-green, white underneath. Abdomen grey-green; sides, extreme apex, and under surface white. Legs brownish-grey, hind pair white. Forewings with costa slightly arched; hind margin oblique, slightly rounded; costa light grey, finely edged with reddish-brown; light grey-green; crossed with numerous fine, sinuous, uninterrupted transverse pale grey strigulae; a very faintly marked light line from  $\frac{1}{3}$  costa to  $\frac{2}{3}$  inner margin, in some specimens unrecognisable; cilia greenish-white, greener at base. Hindwings with colour, strigulae, cilia, &c., as in forewings; anal angle prolonged and acute.

Brisbane; rare. November, 1887, to February, 1888.

This species is allied to *I. ocyptera*. It may be distinguished by the very delicate structure of the wings, which are more or less translucent, and by the uniform colour which has the appearance of a blue-green feebly dusted with grey.

IODIS MARLÆ, n.sp.

♂♀. 25-28 mm.—Head green. Palpi reddish-grey, terminal joint prolonged. Antennæ greenish-white, finely annulated with grey. Thorax green, collar and shoulders white. Abdomen creamy white; dorsum ferruginous, centred with white spots on front segments, and having bands of white posteriorly. Forewings with costa slightly rounded; hind margin obliquely rounded; bright green; costa with narrow line of creamy white, toward apical angle becoming ferruginous, and continuous with narrow

band round hind margin ; discal spot small, black ; a ferruginous line from  $\frac{2}{3}$  of inner margin, crenate, dentate to half-way across wing, thence sharply deflected to  $\frac{1}{3}$  of hind margin, and continuous with marginal band ; space enclosed reddish-brown, suffused with light violet ; cilia ochreous. Hindwings as forewings ; discal spot small, black ; a narrow ferruginous band continuous round hind margin and along inner margin to  $\frac{1}{3}$ , slightly diffused on anal angle ; ferruginous band at  $\frac{2}{3}$  costa obliquely across to  $\frac{2}{3}$ , then rounded to  $\frac{1}{3}$  of hind margin, space contained reddish-brown, suffused with light violet ; cilia reddish-brown, on inner margin very long, brownish-grey.

Brisbane. November, 1887 ; March, 1888.

Appears to come near to *I. buprestaria*, Gn. The conspicuous large red purplish blotches, which are contiguous on the hind margins of the wings, readily distinguish this handsome moth.

I have named this species in memory of my late wife, who discovered it in November, 1887, and who for years was a most indefatigable collector of Australian Lepidoptera.

#### IODIS EUCALYPTI, n.sp.

♂♀. 32-37 mm.—Face and head green, collar ochreous, dotted with ferruginous. Palpi ferruginous, terminal joint long. Antennæ ferruginous, in ♂ finely pectinated, pectinations brownish-grey, in ♀ finely beaded with reddish-ochreous. Thorax rich pea-green, posteriorly on dorsum an elongated ferruginous blotch with pink centre, hairy beneath. Abdomen green, a series of light ferruginous dots on dorsum, becoming a diffused blotch on fifth segment, ochreous posteriorly ; sides and undersurface white. Anterior and middle legs whitish, coxæ light ferruginous, posterior legs silky white. Forewings broad, costa arched, hindmargin rounded ; rich pea-green with numerous interrupted sinuous, finely pencilled ochreous-red transverse strigulae ; costa deeply ferruginous, finely irrorated with ochreous ; two sinuous interruptedly dentate reddish-ochreous lines ; first from a ferruginous

dot  $\frac{1}{3}$  costa to  $\frac{2}{3}$  inner margin, where it is lost in a conspicuous ferruginous dot; second from  $\frac{1}{3}$  costa to  $\frac{1}{3}$  inner margin; a deep ferruginous band continuous with costa on hindmargin, spots on veins bright golden-ochreous. Cilia ferruginous, tips grey. Hindwings broad, hindmargin rounded. Colour of hindmarginal band and strigulae as in forewings; second line finely pencilled, reddish-ochreous, sinuous, dentate,  $\frac{1}{3}$  costa to  $\frac{1}{3}$  inner margin, pointing deeply inwards in middle third; cilia as in forewing, on inner margin green, apices grey.

Brisbane. November, 1887.

A very handsome species, easily distinguished by the ferruginous border of the wings and the numerous ochreous-red strigulae.

Caterpillar allied to the curious flat larvæ, with oblique side projections, of *insperata* and *piroides*. Feeds on dwarf scrubby Eucalyptus.

#### IODIS MARGINATA, n.sp.

21 mm.—Head reddish-ochreous, fillet ochreous. Palpi whitish, terminal joint long. Antennæ red, underside ochreous. Thorax light blue-green, dorsal line posteriorly and lateral lines red. Abdomen light blue-green, dorsal line blackish-red, finely annulated with creamy-white. Forewings with costa nearly straight, hindmargin rather obliquely rounded; light blue-green, almost a milky-blue. Costal band deep red, finely edged with ochreous; hindmarginal line a series of reddish-black lunules connected by points, and bordered by a pencilling of lighter red; sub-marginal line white, finely sinuous. Cilia reddish, terminal half lighter. Hindwings as forewings, hindmargin strongly rounded, angled and bent at vein 4; sub-marginal, marginal lines and cilia as in forewings.

Brisbane. One specimen; February, 1888.

I think this species hardly belongs to the genus *Iodis*, but as Meyrick has grouped so many genera together under this name, I have placed it here for the present. Though not large the insect is most conspicuous with its deep red wavy wing border, and by the uniform colour of milky-blue, devoid of marking.

*Iodis meandraria*, Gn. Moe, Gippsland, Victoria.

*I. stereota*, Meyr. Cheltenham, Melbourne, Victoria.

*I. fugitivaria*, Gn. Mount Macedon, Victoria.

*I. gratiosa*, Gn. Beaconsfield, Victoria.

*I. centrophylla*, Meyr. Moe, Healesville, Victoria.

*I. submissaria* (?), Walk. Melbourne.

*I. cadmaria*, Gn. Melbourne, Victoria.

*I. cadmaria*, var. Moe, Gippsland, Victoria.

*I. rhodocosma*, Meyr. Brisbane, Queensland.

*I. buprestaria*, Gn. Cheltenham, Moe, Victoria.

*I. boisduvalaria*, LeG. Fernshaw, Victoria; Windermere, Tasmania (Mr. Barnard).

*I. partita*, Walk. Brisbane, Queensland. Five specimens.

This is a most beautiful species, representing a group of roses on a green ground.

*I. iosticta*, Meyr. Brisbane, Queensland.

*I. crossota*, Meyr. Brisbane, Queensland.

*I. insperata*, Walk. ♂ Melbourne, Victoria; ♀ Melbourne, Victoria; Brisbane.

I have taken several females, but as yet no males, in my own garden at Brisbane.

*I. pieroides*, Walk. Brisbane, Cooktown, Queensland.

Larva feeds on Rose, Guava tree, Eucalypts, &c., and resembles that of *I. insperata*.